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January 26, 1976

**Week**

**What Causes  
CANCER?**

**A**mericans used to think of cancer—when they permitted themselves to think of it at all—as one of those roll-of-the-dice diseases: mysterious, unpredictable and, if your number came up, unavoidably fatal. But recently, they have been learning something new and, in a sense, far more frightening about cancer. In the vast majority of cases, cancer may be a man-made disease.

To judge from newspapers, magazines and television, even the simple acts of eating, drinking, breathing and touching may expose Americans to some possible cause of cancer. Women have been warned not to eat beef liver because it may produce cancer of the vagina. Several of the nation's major sources of water have been found to contain an industrial chemical that causes cancer in laboratory rats. Polyvinyl chloride (PVC), a plastic used in food wrapping, is also under suspicion. Some housewives began to shun bacon and ham after they were told these products contain dangerous

"the introduction into the universe of potent chemical agents which are largely untested for adverse public-health effects." Epstein notes that cancer rates have nearly tripled since 1900 (partly because of increased life expectancy, partly because of better diagnostic techniques), and that they have gone up 1 per cent a year since 1933—not to mention the mysterious but still tentative 5 per cent increase indicated for 1975. "There is no question," he says, "that cancer is a major epidemic."

Though a number of Epstein's colleagues might choose to state the case less dramatically, few disagree that the environment and what man has done to it loom increasingly as the major sources of the second greatest killer (after heart attacks) in the nation. In coincidental support of this thesis, Academic Press this week will publish a massive, 544-page report entitled "Persons at High Risk of Cancer." Based on a symposium sponsored by the National Cancer Institute and the American Cancer Society,

was devoted to such projects a few years ago. And eventually, NCI plans to spend an additional \$50 million on a program to study the role of diet alone in cancer. Last summer, NCI published a "Cancer Atlas" based on a survey of cancer deaths in the 3,056 counties of the contiguous 48 states. "It's generating a lot of ideas of where to look and what to do," says Marvin Schneiderman of NCI. Among the patterns emerging from the cancer map (page 67) were the high rates of bladder cancer in the industrialized Northeast as well as excessive lung and liver cancer rates in smelting-industry communities.

In recent months, the search for cancer-causing substances in the environment has stirred a welter of controversy, involving environmentalists, industry and the scientists themselves. Even the experts disagree somewhat on what substances are hazardous and what ought to be done about them when they are found. Of more than 1,400 chemicals, drugs and pollutants now suspected of causing cancer—mostly on the basis of animal tests—only about 22 are now widely held to be carcinogenic to man.

amounts in the last 30 years to make polyvinyl chloride, a plastic found in a vast array of items, including food containers and phonograph records. In 1973, Italian researchers found that VC produced liver tumors in rats. The findings were largely ignored until it was learned that the same kind of tumor—exceedingly rare under ordinary circumstances—had taken the lives of three workers at the B.F. Goodrich plant in Louisville, Ky. Only then were revised standards on exposure put into effect.

**F**or the scientists, there are two major problems in uncovering cancer-causing substances. The first is the long "latent" period—often twenty to 35 years—between the beginning of exposure to a carcinogenic substance and the appearance of malignant disease. In addition, scientists find themselves in disagreement on how big a dose of a substance is enough to trigger cancer. Some researchers point out that almost anything, including sugar and salt, will cause trouble if given in a large enough

## WHAT CAUSES

# CANCER?

chemicals. Most startling of all was the disclosure last November (NEWSWEEK, Dec. 15, 1975) that cancer deaths for the year 1975 seem to have jumped by a startling 5 per cent.

Small wonder, then, that many scientific experts have begun to regard the environment—everything we come into contact with—as a far more significant source of cancer than aberrant cellular mutation. Even if the headlines tend sometimes to overstate the case, there seems little doubt that the newest frontier in cancer research has now become the environment itself. Already the World Health Organization estimates that up to 85 per cent of all cancer cases are the direct result of exposure to environmental factors of one kind or another—in many instances almost fatalistically self-inflicted by such habits as overeating, smoking, overdrinking and excessive exposure to sunlight and dangerous chemicals in the factories.

Some scientists, like Dr. Samuel S. Epstein, an environmental toxicologist at Case Western Reserve University Medical School, think that the past two or three decades have witnessed a phenomenon unique in the history of man—

the report offers a sweeping and meticulously documented appraisal of the most recent research on the epidemiology of cancer in man—with special emphasis on the possible roles of diet, drugs, radiation and the workplace.

**A**lready, the concern about the role of the environment in cancer seems to presage a major shift in the application of cancer research funds. Critics charge that the NCI has so far failed to devote an appropriate slice of its \$690 million budget to research on cancer control and prevention and on the identification of carcinogens in the environment. They say that NCI researchers are spending an inordinate amount on basic research, including \$90 million on a virus program that has yet to uncover a human-cancer virus. The critics charge that even if such a virus is found, it would account for only a small number of cancer cases.

Of the remaining \$600 million in the NCI budget, only \$45 million will go this year into research on carcinogens. But even this sum represents a new emphasis on cancer prevention. Only \$7 million

Responsibility for protecting the public from carcinogens is shared by a bureaucratic web of government agencies that includes the Environmental Protection Agency, the National Institute for Occupational Safety and Health, the Occupational Safety and Health Administration and the U.S. Food and Drug Administration. Not surprisingly, their responsibilities not only overlap but are often in direct conflict, with different agencies setting different standards for regulating suspect chemicals.

Most experts agree on the need for a law that would mandate testing of all new chemicals and drugs for toxicity—including the tendency to cause cancer—before, not after, they enter the environment. "If you wait till people are hit by the epidemic," says the NCI's Dr. Umberto Saffiotti, "it's too late." Such a bill has lain before Congress for five years, and many critics charge it has been blocked by industry pressure.

The consumerists point to the recent vinyl-chloride episode as a stark example of the failure of the present system to catch a dangerous chemical before it causes trouble. Vinyl chloride is a gas that has been used in ever-increasing

dose. Most regulations are based on the idea that there is a "threshold" of exposure, below which there is no risk. But many experts insist there is no such thing as a safe level. "Lower concentrations simply mean lower incidence," says Epstein. "There is no threshold."

The second and equally controversial question is whether testing in animals is a reliable indicator of what a substance will do to man. The amount of a substance required to cause cancer in an animal may not realistically reflect the amount that humans can safely be exposed to. But toxicologist Epstein insists that animal results are applicable to man. "Information in tests from well-designed and valid animal systems," he says, "constitutes very strong evidence for a cancer hazard in humans."

Some manufacturers have been suspected of hiding or falsifying test results indicating a cancer hazard. Last week, NEWSWEEK learned, the EPA and the Department of Health, Education and Welfare were thinking of taking criminal action against several corporations and commercial testing labs for just such fraud. The agencies are also planning to look into conflict-of-interest charges in-

SKIN 1%

ORAL 3%

LUNG 33%

COLON AND RECTUM 12%

OTHER DIGESTIVE 15%

URINARY 5%

PROSTATE 10%

LEUKEMIA AND LYMPHOMAS 9%

ALL OTHER 12%

Figures indicate percentages of estimated 1976 cancer deaths

SKIN 1%

ORAL 1%

LUNG 11%

BREAST 20%

OVARY 6%

COLON AND RECTUM 15%

OTHER DIGESTIVE 14%

UTERUS 7%

URINARY 3%

LEUKEMIA AND LYMPHOMAS 9%

ALL OTHER 13%

Source: The American Cancer Society

Photos by Frances McLaughlin-Gill

volving scientists who act as paid advisers to regulatory agencies while getting consultant fees from private companies.

Workers who have been exposed to carcinogens in their jobs are often amazingly philosophical about the life-threatening risk they are taking. Charles Russell of New York has been inhaling asbestos fibers for 28 years as an insulation worker. Now, he turns up regularly at his union headquarters for lung-cancer checkups conducted by Dr. Irving Selikoff of New York's Mount Sinai Hospital, who was among the first to show that asbestos workers exhibit a high propensity for the disease. "It's a bad risk," says Russell, who is healthy so far, "but where are you going to find work? I'm taking home \$230 a week, so what can you do?"

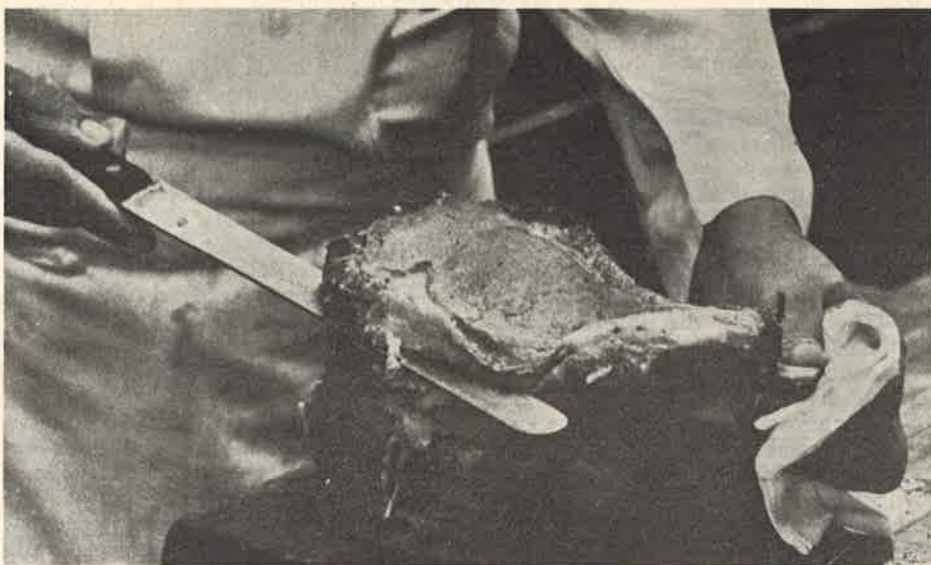
Clearly, the environment is never going to be entirely free of carcinogens, and the government, researchers and consumers have to make practical choices about the risks they are willing to take. "Before eliminating pesticides like DDT," says E. Cuyler Hammond, chief of epidemiology for the American Cancer Society, "you must carefully consider what it might mean for the health and nutrition of much of the world."

The outcry that follows each successive new disclosure of a possible carcinogen on the dinner table or in the work shop tends to obscure the fact that 60 million Americans continue to expose themselves to tobacco—the least disputed carcinogen of all. Moreover, many experts believe the problem has been exploited to an unconscionable degree by some overzealous consumers, organic-food promoters and the news media. "American cancerphobia," noted a recent editorial in the prestigious New England Journal of Medicine, "is a disease as serious to society as cancer is to the individual."

The truth is that cancer is not one disease, but at least 100 separate diseases involving a derangement in the life of the body's cells. Only by studying the epidemiology of cancer in humans on a vast scale can the effect of life-style on the disease be determined. Following are some of the most important and promising clues on the questions of environment and cancer, taken from the just-published "Persons at High Risk of Cancer" and interviews by NEWSWEEK reporters:

## 1. FOOD AND DRINK

**F**oods and food additives may contribute to cancer through complex chemical interactions that have only recently come under scrutiny. A case in point is the controversy over sodium nitrate and sodium nitrite. They are naturally present in many foods and some water supplies, and are added to bacon, ham and smoked foods to enhance their color and inhibit the growth of the deadly bacteria that cause botulism. Although not carcinogenic by



Food: In an affluent society, the better fed may be worse off

themselves, they combine with amines (chemical compounds derived from ammonia) found in the body to form nitrosamines. And nitrosamines are highly potent carcinogens in animals.

Several epidemiologists have tied nitrates in smoked fish to the high incidence of stomach cancer among the Japanese. Yet there is no evidence that nitrosamines from nitrates and nitrites in the American diet are a threat. For one thing, these substances volatilize during cooking, notes Dr. Philippe Shubik, director of the Eppley Institute for Research in Cancer at the University of Nebraska, so exposure to nitrosamine after eating cured meat would be low. Moreover, nitrites are abundant in saliva. "Every day," notes Dr. Thomas Jukes of the University of California, "we swallow as much nitrite as found in a pound of bacon." Interestingly, vitamin C can block formation of nitrosamines—at least in the test tube. "The same individuals who put themselves at risk by eating bacon every morning," writes Dr. John W. Berg of the University of Iowa, "may be protected by preceding the bacon with orange juice."

The case against artificial sweeteners is also weak. Some studies made after cyclamates were removed from the market have failed to confirm that cyclamates cause bladder cancer in animals, and the FDA is seriously considering lifting its ban. Although saccharin has been found to cause cancer when implanted directly into the bladder, it is far from clear that it is hazardous if consumed in the diet. Significantly, diabetics have been consuming saccharin for years, yet there is no sign that they have a higher than normal cancer risk.



Factories: Asbestos plants are high on the risk list

Of greater concern is the link between the fatty diet of affluent countries and the risk of two of the most prevalent malignant diseases—cancer of the bowel and breast. Bowel cancer is common in the U.S., but uncommon in Japan, where fish is a staple. However, among Japanese migrating to the U.S. and their children, the colon-cancer risk approaches the U.S. level, presumably because of a change in dietary habits. Beef is a likely suspect. The Scots, who consume 20 per cent more beef than their English neighbors, have one of the world's highest bowel-cancer rates.

**C**ancer of the breast, as well as the prostate, ovary and uterus, is prevalent in most Western countries and may also be related to heavy fat intake. Breast cancer has been linked to overnutrition in women, and fats have been found to promote breast cancer in mice.



Drugs: Dangers sometimes outweigh gains

Hormones are known to play a part in breast cancer and the current suspicion is that fats may overstimulate hormone production or disrupt normal hormone balance.

Too much liquor is related to the development of cancers of the mouth, throat, esophagus, larynx and liver. But the risk is greatest among heavy drinkers who also smoke, giving rise to the belief that alcohol is a co-carcinogen, acting in conjunction with tobacco carcinogens. Among men who drink more than an ounce and a half of liquor a day, the mortality from oral cancer is two to six times greater than it is for teetotalers, depending, in direct proportion, on the amount they smoke. For heavy drinkers and smokers, the risk is up to fifteen times higher than for those who neither drink nor smoke.



Radiation: Overexposure to the sun may cause skin cancer

## 2. DRUGS

**M**any epidemiologists are more concerned about the cancer potential posed by drugs than they are about food additives, because drugs are taken in relatively large doses. A certain cancer risk, in some cases, may be outweighed by the seriousness of the disorder the drug is designed to treat, so physicians must balance the benefit against the risk. One of the most disturbing links between a drug and cancer was the discovery in 1971 that the daughters of women who took the synthetic estrogen diethylstilbestrol (DES) in early pregnancy were susceptible to an often fatal vaginal cancer (box, page 66).

DES was given to thousands of women after World War II on the theory that it would prevent miscarriage. Much later, Dr. Arthur L. Herbst and his colleagues at Massachusetts General Hospital encountered seven young women with a vaginal adenocarcinoma, a disease that is not only rare, but had almost never before been found in a woman under the age of 50. Checking the medical histories, the doctors found that all their patients' mothers had used DES in pregnancy. Since that initial report, more than 250 similar cases have been documented.

More recently, several studies have suggested that the use of estrogens by middle-aged women to alleviate symptoms of the menopause increases their risk of uterine cancer. Researchers at the University of Washington reported that the risk of cancer was nearly five times higher among women who took the hormones than among those who didn't.

A major unresolved question is whether the birth-control pill—taken by 10 million U.S. women—also poses a cancer risk. In experimental animals, estrogens, which are a constituent of the pills, have

## CANCER AND THE ENVIRONMENT: TEN TOP SUSPECTS

SUBSTANCES	WHERE FOUND	CANCERS THEY MAY CAUSE
ARSENIC	Mining and smelting industries	Skin, lung, liver
ASBESTOS	Brake linings, construction sites, insulations, powerhouses	Lung, pleura, peritoneum
BENZENE	Solvents, oil refineries, insecticides	Bone marrow
BENZIDINE	Rubber making, dyestuffs	Bladder
COAL-COMBUSTION PRODUCTS	Steel mills, petrochemical industry, asphalt, coal tar	Lung, bladder, scrotum
NICKEL COMPOUNDS	Metal industry, alloys	Lung, nasal sinuses
RADIATION	Ultraviolet rays from the sun, medical therapy	Bone marrow, skin, thyroid
SYNTHETIC ESTROGENS	Drugs	Vagina, cervix, uterus
TOBACCO SMOKE	Cigarettes, pipes, cigars	Lung, bladder, mouth, esophagus, pharynx, larynx
VINYL CHLORIDE	Plastics industry	Liver, brain

Watch list: In a world full of possible carcinogens, some substances have been identified as particularly dangerous



Mrs. Malloy and Marilyn: A drug with a deadly delayed reaction

## DAUGHTERS OF DES

For Grace Malloy, childbearing did not come easily. Although her first daughter was born in 1946 without complications, a subsequent pregnancy ended in miscarriage. When during her next pregnancy she also showed signs of miscarriage, her doctor prescribed diethylstilbestrol (DES), a synthetic estrogen widely used in such cases at the time. A second daughter, Patti, was delivered in 1951. After yet another miscarriage, Mrs. Malloy became pregnant a fifth time and was again given DES. Another daughter, Marilyn, was born in 1956.

It was not until Patti and Marilyn were 19 and 14 that Grace Malloy read a newspaper report linking DES to a rare but deadly form of vaginal cancer in young women whose mothers had taken the hormone during pregnancy. Alarmed, Mrs. Malloy asked her doctor if there was anything to this "scare." "You bet your life there is," he replied. "You'd better get those girls in for an examination right away." The result was bad news: Marilyn had vaginal cancer.

**Malignancy:** In an operation lasting more than twelve hours, Marilyn's vagina and nearby lymph glands were removed; an artificial vagina was constructed using skin grafts from her legs. The doctors were hopeful that they had excised the entire malignancy, but a year later they discovered that the cancer had spread to one lung, the esophagus and the lining of the heart. Following another operation, Marilyn recovered sufficiently to resume her passion—horseback riding.

A short time later Marilyn's condition worsened. She lost her appetite, suffered from nausea and severe headaches. Tests revealed that the cancer

had reached her pituitary gland, and Marilyn underwent a grueling six-week regimen of "whole head" radiation. When all her hair fell out as a result, she still refused to give in to self-pity and kept up an active social life, wearing a bright scarf over her head. But at night Mrs. Malloy could hear her daughter moaning in pain with the cancer that was continuing its lethal spread through her arms, legs, spine and brain. Soon she was blind and confined to a wheelchair. Marilyn died on May 26, 1974, two weeks before her high-school class's graduation.

**Guilt:** Today, sitting in her elegant, sun-filled La Jolla, Calif., living room, Grace Malloy tells Marilyn's story with self-control. She does not savor pathos. Nor does she feel any personal guilt over her daughter's tragic death. "I had no way of knowing what those pills would do," she says. "Thousands of women took them, but we all did it in the best of faith, because our doctors prescribed them."

Nonetheless, Grace Malloy is not without bitterness about what happened to her family—and what still may lie ahead. Her older daughter, Patti, now 25, has been diagnosed as having vaginal adenosis, a lesion that appears benign but could be the precursor of cancer. In spite of long-standing reservations, Patti recently decided to get married, and her doctors claim her prospects for a healthy future are good. But there is no guarantee; for the time being, Patti can only wait—like thousands of other young women with the same history—and pray that the killer that claimed her sister may pass her by.

—JEAN SELIGMANN with LAWRENCE SHOOK in La Jolla, Calif.

been shown to cause breast cancer. One recent study suggested that the risk of breast cancer was increased for women who took the Pill before having their first child and for those with a history of benign breast tumors. But at least three other surveys failed to show a connection between oral contraceptives and breast cancer.

Drugs used to prevent rejection of organ transplants by suppressing the immune response have also been found to cause cancer. Among more than 6,000 kidney-transplant recipients, the risk of lymphatic cancer was found to be 35 times greater than normal. Of concern to some experts is the fact that one such drug, methotrexate, is being prescribed for the treatment of severe psoriasis.

### 3. RADIATION

There is no question that X-rays and similar forms of radiation can cause leukemia and other forms of cancer if received in high doses. Survivors of the Hiroshima and Nagasaki atomic blasts have shown a significantly higher than average incidence of leukemia, as well as of cancers of the breast, bowel and brain. Recently, it has been found that those treated with radiation in childhood for tonsillitis, enlarged thymus glands and other conditions during the 1940s and 1950s have an increased risk of thyroid cancers. What is not clear, is how much risk there may be from exposure to conventional diagnostic X-rays.

According to Lorne Houten of Roswell Park Memorial Institute, Buffalo, N.Y., the amount of radiation from a single abdominal X-ray increases the risk of leukemia. One rad (the standard unit of dosage) of radiation, says Houten, ages the cells it strikes by one year. Thus, a 50-year-old man who has received 10 rads has the susceptibility of nonlymphatic leukemia—a form of the disease that strikes adults—of a 60-year-old. In addition, irradiation of men and women during their reproductive years increases the likelihood that their offspring will develop leukemia. On the basis of these observations, Houten thinks that no one should undergo routine screening X-rays—including mammography to detect breast cancer—below the age of 50. An exception, in his view, would be a woman with a family history of breast cancer.

But other cancer experts disagree. Dr. Luther Brady of Hahnemann Medical College, for one, disputes Houten's correlation between diagnostic X-rays and leukemia. "I don't think anybody has confirmed that 1 rad increases the risk of leukemia," he says. E. Cuyler Hammond also disagrees with Houten's feeling about mammography. "The benefit exceeds the risk," says Hammond, "if it is a risk at all."

Ultraviolet radiation from the sun increases the risk of skin cancer. A committee of the National Academy of Sciences recently estimated that among white persons living along the 40th parallel

(Philadelphia, for example), 40 per cent of melanomas and 80 per cent of other types of skin cancer could be attributed to ultraviolet rays. Fortunately, most skin cancer is slow-growing and has a low mortality. Melanoma, however, is one of the deadliest cancers. Indicative of the role of sunlight in this type of cancer is the fact that the mortality from melanoma is 75 per cent higher in the band of states running from Louisiana to South Carolina than in the northern latitudes from Washington to Minnesota.

### 4. THE WORKPLACE

The list of substances that threaten Americans in the workplace is long and growing longer. Chromates, which are used in paints, pose a hazard of lung cancer. Rubber workers have an increased risk of leukemia from exposure to benzene. Lung cancer and lymphoma have been found to occur at a high rate among workers exposed to inorganic arsenic, which is a basic material in more than 40 jobs from tinting windshields to spraying roses. Like vinyl chloride, arsenic has also been linked to liver cancer. For 80 years, benzidine [used in dye making] has been known to cause bladder cancer. It has been withdrawn in Great Britain, the Soviet Union and several other countries, but is still widely used in the U.S.

Many of the occupational carcinogens

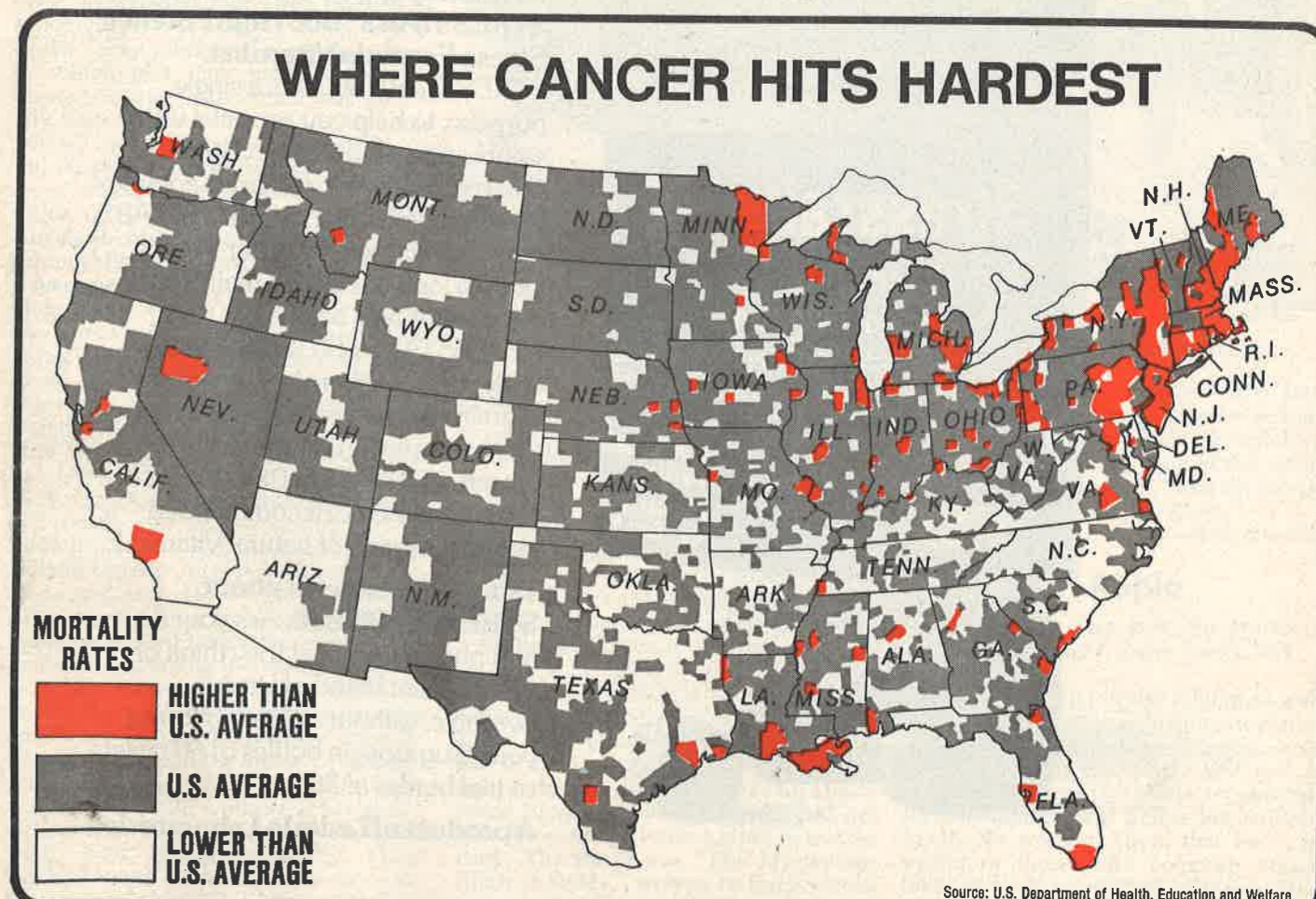
do their work in combination with other noxious agents. Mount Sinai Hospital's Irving Selikoff and the ACS's Hammond found that asbestos workers develop a higher than normal rate of lung cancer only if they also smoke (although non-smokers among them have high risk of colon cancer and an abdominal and chest tumor called mesothelioma). The incidence of lung cancer among asbestos workers, in fact, was eight times what it was for smokers in other industries and a startling 92 times the incidence found in nonsmokers.

Of considerable concern among the experts is the risk that hazardous substances pose for persons living near plants or for the families of workers. Epidemiologists in South Africa and England have found mesothelioma in a number of men and women who had never been inside an asbestos plant, including a few who had simply lived in the households of asbestos workers. In the U.S., people living in communities where there are copper-smelting facilities have a higher than expected average of lung cancer. Some experts are beginning to uncover what seem to be community-wide effects from vinyl chloride. In three Ohio towns where vinyl chloride was used in industry, researchers have found a mysterious number of deaths from cancers of the central nervous system in the adult population—as well as neural malformations in children.

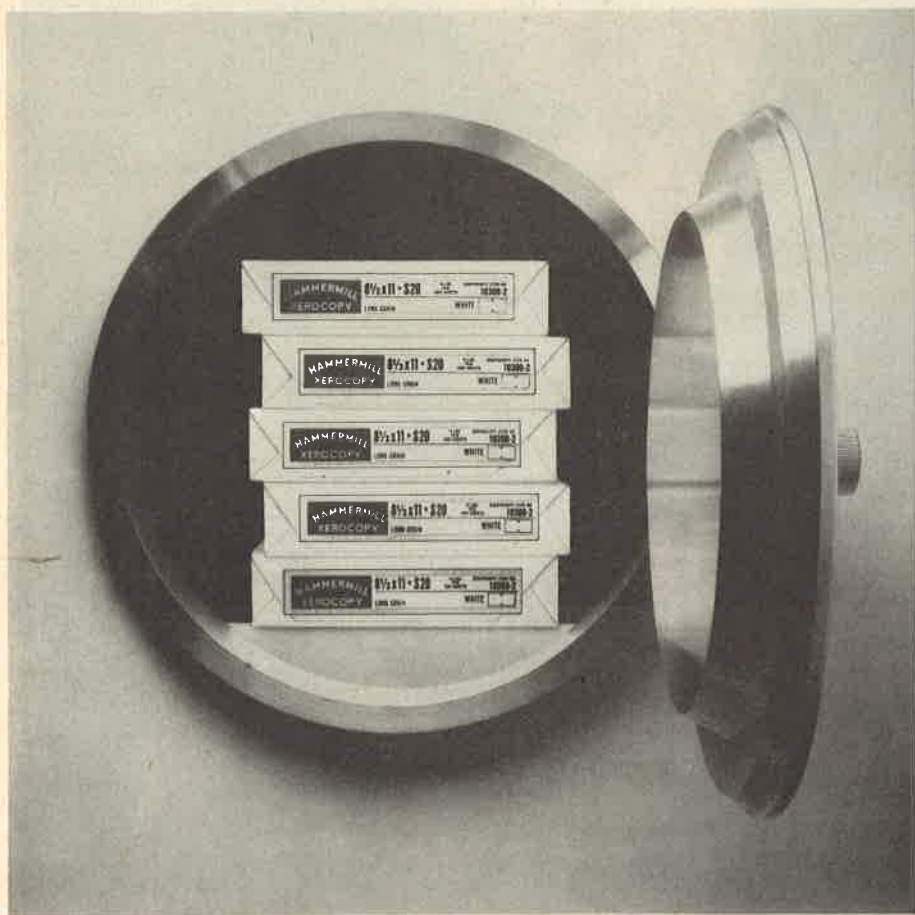
Most experts admit that the task of detecting and ultimately controlling all the potential cancer-causing threats in the environment is, practically speaking, impossible. But they do insist that if there were legal regulations to screen dangerous chemicals before they reached the workplace—or the home—the risks could be greatly reduced. "Dangerous chemicals," says Warren Muir of the White House Council on Environmental Quality, "can be controlled."

Beyond such enforcement measures, the real task of lowering the incidence of cancers induced by the American lifestyle is essentially up to ordinary citizens—and here the outlook for constructive action does not seem so bright. For despite all the warnings, the majority of Americans continue to indulge themselves in the potentially harmful pleasures that their opulent society provides, and so far they are apparently content to take the perils along with the pleasures. "Right now we've decided that this is the way we want to live and die," says Dr. David Baltimore, who won a 1975 Nobel Prize for basic cancer research. "And that's the real challenge in American health today."

—MATT CLARK with MARIANA GOSNELL and DAN SHAPIRO in New York, JAMES BISHOP JR. and EVERT CLARK in Washington and bureau reports



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## Top of the Week



### What Causes Cancer? Page 62

Most medical effort in the battle against cancer has centered in the laboratory, where researchers sought the causes of the disease at the cellular level. Now that emphasis is changing. Many scientists believe that 80 per cent or more of all cancers can be traced to man-made causes—the food man eats, the drugs he takes, the chemicals he manufactures, the radiation he generates. They argue that the best hope of controlling the disease is to control these environmental factors. Newsweek surveys the main substances suspected of causing cancer and describes what is known about them. (The cover photo, by Howard Sochurek, is a color-density scan of an X-ray, in which the brighter colors represent the denser parts of the body.)

### Freedom Now Page 34

Colonialism ended in the Spanish Sahara last week with Madrid's final troop withdrawal. But "freedom" set off a power struggle among neighboring countries and local rebels. Loren Jenkins toured the Sahara while Scott Sullivan reported on Algeria, one of the interested parties.



Newsweek's Loren Jenkins and a Saharan demonstrator



Orth (left) in 'Beauties'

### Emperor Lina Page 78

The first woman film director to reach world-class stature is Italy's Lina Wertmüller, whose most recent movie, "Seven Beauties," critic Jack Kroll considers her masterpiece. General Editor Maureen Orth, who took a leave of absence to work with Wertmüller on the film (and was pressed into service acting a prostitute in one scene), describes the director's methods and somewhat Napoleonic dictatorship on the set.

### Tiger, Tiger Page 38

Former heavyweight champion George Foreman has longed for another fight with Muhammad Ali ever since he lost the title to him in 1974. Next week he hits the comeback trail in a bout against Ron Lyle. Foreman is an intense, lonely man whose only real home is the prize ring, and he seems persuaded that one day the title he lost to Ali will be his again. Foreman gave a revealing glimpse of himself to Peter Bonventre.



Foreman with Peter Bonventre

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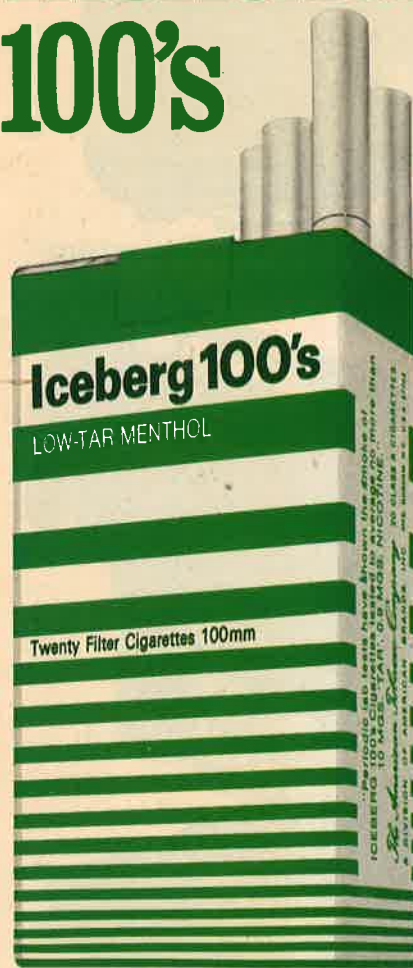


### Budget '77 Page 49

Six days before Gerald Ford was to present it to Congress, Newsweek uncovered a copy of his Budget Message—the tightest and most conservative since fiscal 1960, with a rise in spending for defense and debt interest and few increases elsewhere. The document was a reflection of Ford's own views—but was also one way to blunt the challenge of Ronald Reagan.

Latest U.S. Gov't. report shows:

# Iceberg 100's Lowest tar of all menthol 100's



Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health.

9 mg. "tar", 0.6 mg. nicotine av. per cigarette, FTC Report Nov. '75.

## Letters

with many of the so-called "hairy ones." I witnessed the triumphs—200 people marching down Gorky Street barefoot and not a single reprimand from anyone, including the police—and the defeats like the June 1971 demonstration described in your article.

I would like to make an additional comment on that incident. The demonstration was an act authorized by minor city officials. The officials first refused to sanction any protest but later were coerced into giving their full approval. I have no doubt that the KGB had a hand in this. Why? What better opportunity could there have been to round up 1,500 people, many of whom had no steady employment and had gone underground for fear of being branded "social parasites" and had only surfaced to participate in the demonstration? Of course, to many people not knowing this story, the explanation that "we gave no authorization" appears to be a sound, law-abiding retort. This perfidious act by the authorities led to a weakening of the movement, and it never regained the momentum of that summer of 1971.

EUGENE M. LOROCH  
Chicago, Ill.

### Affirmative Action

Milton Friedman's column (BUSINESS, Dec. 29) decrying bureaucratic interference with academia via affirmative-action plans sounds as if he protests the fact that the government is trying to make honest men out of university administrators. It would seem obvious that if universities and businesses would clean their own houses and eliminate patterns of discrimination against minorities and women, then there would be no need for them to suffer the attacks of big-government Frankensteins that Mr. Friedman so deplors.

ROBIN TAYLOR  
President, Boston Chapter  
National Organization for Women  
Boston, Mass.

### Unearned Diplomas

After reading "Closing the Open Door" (EDUCATION, Dec. 29), I feel it is an absolute waste of money and of professors' time to admit thousands of students to the City University of New York who are nowhere near eighth-grade proficiency in basic skills. To give out high-school diplomas to individuals who can't read or write at the eighth-grade level is to make a mockery of our educational system. Admitting these individuals to college and spending \$30 million a year on remedial programs to attempt to improve their performance so they can begin college-level work is ridiculous. No wonder New York City is going broke. This is social engineering at its worst.

JEAN CHILDERS

Florissant, Mo.

### Crib Death

In your excellent article on the sudden infant death syndrome, known as SIDS (MEDICINE, Jan. 5), you correctly pointed out that a crushing guilt is invariably felt by the parents. The best treatment for this guilt is the immediate diagnosis of SIDS as the cause of death and reassurance to the parents that nothing

Latest U.S. Gov't. report shows:

# Lucky 100's Lowest tar of all non- menthol 100's



Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health.

10 mg. "tar", 0.7 mg. nicotine av. per cigarette, FTC Report Nov. '75.

## Letters

they did could have prevented this tragedy.

Because families usually do not receive this benefit or, if they do, it is delayed for weeks or months, a law mandating such procedures was passed in California in 1974. The law requires (1) immediate autopsy in all suspected SIDS deaths; (2) if the results of the gross autopsy show SIDS, the coroner must immediately notify the health department; (3) the health department must immediately notify the family and explain SIDS to them.

The results of this law have been quite encouraging. I would recommend that other states adopt similar legislation.

NORMAN LEWAK, M.D.

Alameda, Calif.

### Mexican Travel Boycott

Your Dec. 22 issue (BUSINESS) reports that the Life Insurance Marketing and Research Association has canceled a convention scheduled to be held in Mexico. We have canceled no conventions in Mexico; we have had no inquiry from the media on this subject.

BURKETT W. HUEY  
President, Life Insurance Marketing and Research Association  
Hartford, Conn.

✓NEWSWEEK regrets its error

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# Arthritis sufferers: are you cheating yourselves?

Four out of five  
arthritis victims get less  
medication  
with every tablet.

You probably have arthritis or you wouldn't be reading this. And if you do, you want all the pain reliever you can get. But if you are not using Anacin®, the chances are four out of five you can get more help with every tablet than you are getting now. Anacin gives you twenty-three percent more pain reliever/anti-inflammatory medica-

tion than Bayer, twenty-three percent more than Bufferin, twenty-three percent more than ordinary aspirin tablets.

Anacin goes to work quickly to relieve minor arthritis pain and then its stiffness for hours. Soon you feel like yourself again; you enjoy more freedom of movement without pain. Yet millions take Anacin without stomach upset.

Don't cheat yourself. Get more pain reliever/anti-inflammatory medication with Anacin.

## A child like Josi needs your love...

Little Josi in far away Brazil really likes the idea of going to school. When she was only four years old, a letter from her mother to Josi's sponsor said:

"She spends her time with a school bag and books under her arms and goes around saying that she is going to school..."

But without help, Josi's happy dreams of school might never come true.

Josi lives in a crowded slum. Her home has no windows. Their water must be carried some distance from a public pump.

Josi's father works hugging fruit and vegetables. He earns a very meager income. And for a child like Josi, going to school may be only a dream.

But Josi has a chance. She has a sponsor and is enrolled in a Family Helper Project of the Christian Children's Fund. She now receives food, clothing and medical care. When Josi is ready for school, she'll receive help with school fees, uniforms and supplies.

Many other needy children may never have a chance for a better life unless someone cares enough to help.

Through the Christian Children's Fund, you can sponsor a child for \$15 a month. Please fill out the coupon and send it with your first monthly check.

You'll receive the child's name, address, photograph and description of the project.

You are encouraged to write the child and your letters will be answered. (Children unable to write are assisted by family members or staff workers.)

Won't you help a needy child through this person-to-person way of sharing?

Sponsors urgently needed in Brazil, India, Guatemala, Indonesia and the Philippines.



Write today: Dr. Verent J. Mills  
**CHRISTIAN CHILDREN'S FUND, Inc.**

Box 26511, Richmond, Va. 23261

I want to sponsor a ☐ boy ☐ girl in

(Country)

☐ Choose any child who needs my help. I will pay \$15 a month. I enclose first payment of \$ . Please send me child's name, mailing address and photograph. I can't sponsor a child now but I do want to give \$ .

☐ Please send me more information.

Name

Address

City

State Zip

Member of International Union for Child Welfare, Geneva. Gifts are tax deductible. Canadians: Write 1407 Yonge, Toronto 7.

NW 2915



James D. Wilson—Newsweek

Foreman walking his lion: 'A lot of hate'

## Tiger, Burning Bright

"There was a time," said George Foreman, "when I felt I didn't need boxing any more. But I was only fooling myself, like a man who tries living without food. I need the punching and the sweat and the sacrifice. It's what makes me what I am, what makes me different. I'd be nothing without boxing."

The former heavyweight champion of the world clambered into the ring, and his features froze into a glare as frightening as any of the punches that he exploded against his sparring partner. He even looked dangerously trimmer, and each blow was punctuated by a harsh grunt that echoed through the gym near his home in Livermore, Calif. At 27, George Foreman was "alive again," drawing energy from the workout—and mobilizing his body and soul for a comeback fight in Las Vegas this week against a gritty ex-con named Ron Lyle.

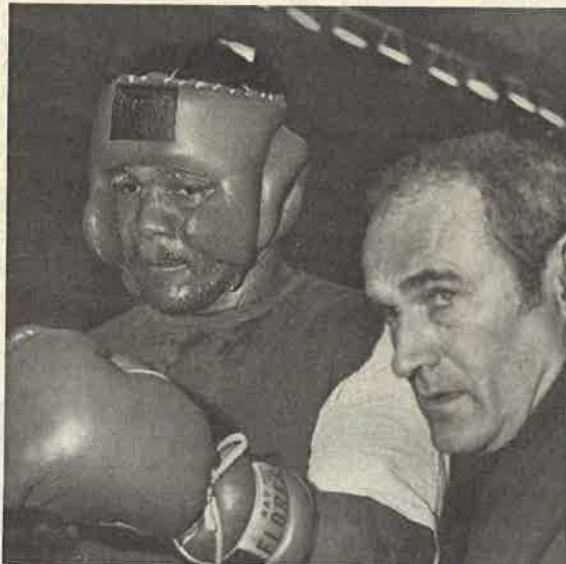
"I'm egotistical," said Foreman. "I realize that. People say I'm a low-key guy, but I want that title back. I'm jealous of Muhammad Ali for having it. Man, I really hate not being champion."

Foreman has been an elusive figure since he lost his title to Ali fifteen months ago in Zaïre. The defeat shattered his image of himself, pulled him apart from old friends and advisers and made him question why he had ever laced on a pair of boxing gloves. At 19, Foreman had escaped a Houston ghetto to win an Olympic gold medal; only five years later, in 1973, he pulverized Joe Frazier

to become world champion. In between, he survived a painful divorce and a gang of fast-buck operators who claimed to own a piece of him.

The experience turned Foreman into an aloof and moody champion. He often mumbled nonsense in interviews, but everybody understood him when he talked about the "magic" in his fists—until Ali countered with his own voodoo in Zaïre. Ali neutralized Foreman's looping punches with his "rope-a-dope" technique. By the eighth round, with Foreman near exhaustion, Ali sprang off the ropes and dropped the champ for his first loss in 41 pro bouts.

**Firing Line:** It was a humiliating defeat and Foreman reacted by making wild excuses and eventually firing Dick Sadler, Archie Moore and Sandy Sadler, the cornermen who had taken him to the top. "I thought I was invincible," he says today. "So did they. Wind me up and watch me smash a guy. But I figured if something went wrong in the ring, they'd tell me how to change my tactics. I kept punching Ali because they told me to. They told me sooner or later he'd fall like everybody else. They were wrong."



L.V. News Bureau

With Clancy: Keep 'em short—and don't walk

I got so tired I could hardly stand."

Foreman left Zaïre confused and alone—and for weeks he'd lie awake at night and relive the knockout. "I finally had no more self-pity in me," he said. "The way the world's going, I figured I had to keep hustling." With nobody in his corner to advise him, Foreman got himself hustled into a pathetic sideshow on television against a succession of five no-account chumps. He battered all of them, but most spectators ridiculed the carnival atmosphere of the event and laughed at George, not with him. "I was disgusted with what happened," Foreman recalled. "I thought I knew best how to deal with myself. I realized then I

had a need for someone to respect, someone to look after me and show me how to get my title back."

Foreman satisfied that need by hiring Gil Clancy, a shrewd veteran trainer from New York, and agreeing to follow Clancy's regimen. He then took the advice of former football star Jim Brown and hooked up with TV executive Jerry Perenchio, who packaged the first Ali-Frazier fight. Perenchio got Caesars Palace to put up the money for the Lyle fight, and Foreman has since come out of hiding again, listening carefully to Clancy's instructions in the gym.

"Short, keep 'em short," barked Clancy—and George snapped a neat foot-long jab at his sparring partner. Moments later, the raspy-voiced trainer ordered "Don't walk, don't walk"—and George shifted his weight to the balls of his feet. Clancy spit out more commands and Foreman responded with such terrifying quickness and power that it was hard to imagine him ever losing. "I want him to shorten his punches and use ring tactics," said Clancy. "He used to bomb away, but no more. He'll set up a guy with that strong left jab of his and wait for the opportunity to put him away."

**Exciting:** The workout finished, Foreman sat on the apron of the ring and exulted in the pleasures of his game. "There ain't nothing like being in the corner, and the trainer is whispering in your ear and another guy is putting in your mouthpiece," he said. "Five seconds to go, then boom! The bell. It's more exciting than looking down a cliff." But boxing has also taught the ex-champ a bitter lesson about human nature. "Now that I'm not champ," he said, "people I thought were my friends pass me by. Before I was champ, I didn't have any hate. Now there's a lot of hate in me. I don't forgive easily. I'm short with people, and I'm wary, so wary."

The only place outside the ring where George finds happiness is his 5-acre ranch in Livermore, which he shares with an assortment of animals, including nine German shepherds, a lion cub and a tiger cub. After his usual early dinner and a long walk, Foreman often stops to watch the tiger pacing in his cage and the lion straining against his leash. "A lion will let you look at him," said Foreman, "but a tiger isn't that way. A lion will develop a family and hunt with other lions in the jungle. A tiger is a loner—travels by himself, hunts by himself, jumps out of nowhere at you. Like me, I hide out a lot, but I'm dangerous."

—PETER BONVENTRE

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I don't smoke a brand to be like everybody else. I smoke because I enjoy it. I smoke Winston Super King. Super King's extra length gives me an extra smooth taste that's real. Real taste—and real pleasure—are what smoking's all about. Winston is for real.

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18 mg. "tar", 1.2 mg. nicotine av. per cigarette.  
FTC Report SEPT. '75.

# "How I lost 980 mg. of 'tar' the first week... without losing out on taste."



©1976 R. J. REYNOLDS TOBACCO CO.

"Switching to a low 'tar' cigarette is no piece of cake if you're a menthol smoker like me. There just are not many low 'tar' menthols to choose from that taste good.

"So I was surprised when I tasted Doral Menthol. A terrific taste, and 7 milligrams less 'tar' than my old brand. That adds up to 140 mg. less 'tar' a pack—for me 980 mg. less 'tar' a week...on my Doral Diet."

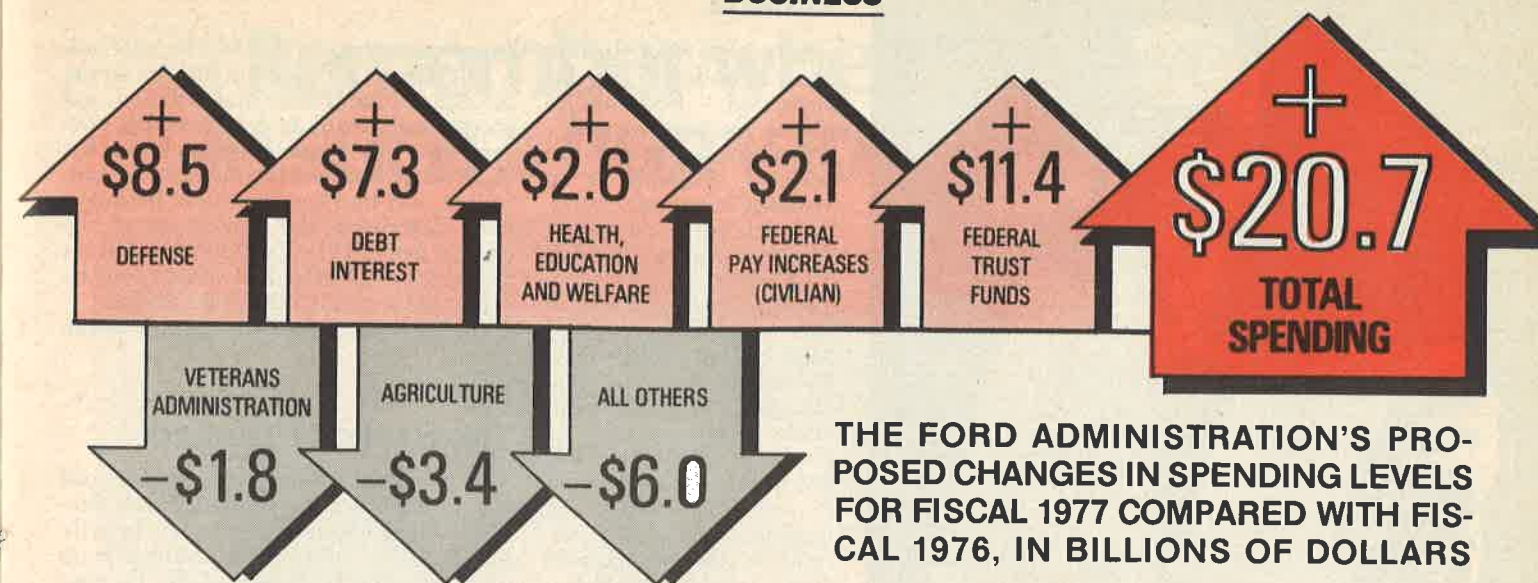


Menthol or Regular.

MENTHOL: 13 mg. "tar", 1.0 mg. nicotine, FILTER: 14 mg. "tar", 1.0 mg. nicotine, av per cigarette, FTC Report SEPT. '75.

Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health.

## BUSINESS



THE FORD ADMINISTRATION'S PROPOSED CHANGES IN SPENDING LEVELS FOR FISCAL 1977 COMPARED WITH FISCAL 1976, IN BILLIONS OF DOLLARS

1b Ohlsson

## Ford's Go-Slow Budget

If Gerald Ford's program for his re-election year is to carry any weight, the State of the Union Message will have to be translated into hard figures in the budget for fiscal 1977 due to be delivered to Congress this week. NEWSWEEK managed to obtain a copy of the President's message and the budget summary late last week. It turned out to be a document beguiling in tone but draconian in character, the most conservative budget proposed by a Chief Executive since President Eisenhower succeeded in holding Federal spending virtually unchanged from fiscal 1959 to 1960.

The President proposes an increase in defense spending—but cuts in practically everything cuttable (chart), and a total budget increase of only 5.5 per cent. He offers a new income-tax cut for individuals and business of about \$10 billion, but only if Congress accepts his spending ceiling. He proposes a \$4.2 billion increase in social-security taxes, coupled with reforms that, among other things, would slow the rise in benefits and eliminate the payment of double cost-of-living adjustments to some social-security recipients. In an apparent counter to Ronald Reagan's controversial \$90 billion plan to return Federal programs to the states, Ford outlines a system of Federal block grants to let individual states set priorities in spending the funds for health, education and social services. And Ford even manages to pare \$800 million from the \$395 billion budget he has been promising for weeks, coming up with a final spending figure of \$394.2 billion. His deficit would be \$43 billion, compared with an estimated \$76 billion for the current fiscal year.

In his message to Congress, Ford pictures the budget as the best possible instrument to sustain the recovery. "This is not a policy of the quick fix," he says.

"It does not hold out the hollow promise that we can wipe out inflation and unemployment overnight. Instead, it is an honest, realistic policy—a policy that says we can steadily reduce inflation and unemployment if we maintain a prudent, balanced approach." To that end, the President says, his proposed 5.5 per cent spending increase would be "less than half the average growth rate we have experienced in the last ten years." And he promises that the budget can be balanced within three years.

For all that statesmanlike rhetoric, the Ford budget is carefully crafted to insure that there is plenty of stimulus to the economy as Election Day approaches—and an improving economy has never hurt an incumbent President. Stimulative budget deficits will continue to be high through the next nine months. None of the spending cuts Ford proposes would take place when the current fiscal year ends on June 30; in fact, spending for the so-called "transitional" quarter before fiscal 1977 begins on Oct. 1 is set to continue the deficit unchanged from the current year's pace.

**Briefing:** To emphasize the importance he attaches to his budget proposal—and his own line-by-line familiarity with it—the President passed the word last week that he would personally brief the press on its contents the day before it is sent to Congress. That chore is customarily handled by a panel headed by the director of the Office of Management and Budget, in this case James Lynn. But by all accounts, Ford has earned his laurels, spending more time in detailed probing than any President since Harry Truman. "He has the simple recognition that you have to go behind the numbers," says Lynn.

Ford's most controversial proposal is bound to be the social-security-tax

boost—an increase that would put the heaviest relative burden on the poorest wage earners. Coming on top of an already mandated increase in the social-security-tax base from \$15,300 to \$16,500, also effective next Jan. 1, this would raise the yearly tax from \$895 to \$1,014 for workers earning \$16,500 or more.

At the same time, the President proposes a so-called catastrophic-illness program "to address the haunting fear of our elderly that a prolonged, serious illness could cost them and their children everything they have." He urges that the medicare program be changed so that "no elderly person would have to pay over \$500 per year for covered hospital or nursing-home care, and no more than \$250 per year for covered physician services." But even here, the cost to the government would be minimal; the President proposes that the added benefits be mostly covered by increasing the premiums paid by beneficiaries.

**Arms:** The biggest single item in the budget is still defense. Ford proposes a total defense budget of \$100.3 billion, up \$8.5 billion over the current fiscal year. "There is no alternative," he tells Congress in his Budget Message. "We dare not do less. And if our efforts to secure international arms limitations falter, we will need to do more." At the Pentagon, analysts said the President's budget would not cut as deeply as former Defense Secretary James Schlesinger feared before he was fired by Ford for insisting on even more spending. But the military men still argued that Ford's proposal would not cover all the costs of inflation and provide the extra money needed to match Soviet expansion.

Aside from defense, the biggest increases are in areas where Ford or any President would be powerless to cut back. Spending by Federal trust funds

# New Salem Lights



Lowered "tar."  
Same fresh  
taste.

Warning: The Surgeon General Has Determined  
That Cigarette Smoking Is Dangerous to Your Health.

12 mg. "tar", 0.9 mg. nicotine av. per cigarette by FTC method.

## THEATER

### Zen and Zap

Producer-director Harold Prince refuses to play it safe. Unlike other Broadway big shots, you don't find him maiming old Mames or dolling up old Dolls. In *PACIFIC OVERTURES*, this Prince-errant practically goes to the ends of the earth to create a new challenge for himself. "Pacific Overtures" is an audacious attempt to create a musical play by mixing American sensibility and technique with those of Japan—specifically the ancient Kabuki theater. When 28-year-old John Weidman showed Prince a play he'd written about the opening of Japan to the West in 1853 by Commodore Matthew Perry, the



Martha Swope

Fujimoto's Lion Dance: Also, a cakewalk

producer got the idea of turning it into the fourth musical of his fruitful collaboration with composer-lyricist Stephen Sondheim. The result is the most original—though not the best—product of Prince's brilliant atelier, which includes set designer Boris Aronson, costume designer Florence Klotz and choreographer Patricia Birch, among others.

No other team in the American theater could have achieved this show's integration of elements, its harmony of form, color, sound and movement. Sondheim's feeling for the weight and wit of measured language allows him to deftly absorb Japanese poetic forms such as haiku into his lyrics. And his parallel gift for the histrionic shapes and gestures of music lets him slip with sneaky grace between Western and Eastern modes. Prince's

immaculate staging has a buoyancy and stylishness he's never reached before. Using the armature of the Kabuki theater—the reciter narrating the story, on-stage musicians accenting the action, an all-male cast playing both sexes—he accomplishes a remarkable technical feat in grafting Broadway rhythm onto Kabuki cadences.

It was one thing for the well-matched



Zoe Dominic—Franz Furst

Arrival of the black ships: Oceangoing dragons come to bedevil the Japanese

sensibilities of Prince and Sondheim to explore the anxieties and fantasies of the urban upper-middlebrow world in "Company" and "Follies." It's quite another for them to dramatize the crucial moment of metamorphosis in an alien culture—and through the eyes of that culture. The first act is an almost total success as Prince and Sondheim blend Zen and zap to show the impact of Perry's visit on a Japan that has cut itself off from the world for more than 200 years.

**Barbarians:** Sondheim's first song evokes this floating world whose inhabitants know that "Gods are crumbling somewhere / Machines are rumbling somewhere / Not here." Aronson's airy, gliding screens erupt into the threatening masses of Perry's black ships—oceangoing dragons whose eyes smolder like the furnaces of the Industrial Revolution come to bedevil these rice-planting doll people. In a hilarious council of state, the scared shogun is plied with sagacious advice and poisoned chrysanthemum tea by

his smilingly filicidal mother. Practicality rears its sinuous head as a madam and her girls prepare to meet the barbarians with erotic virtuosity. The triumphant Perry celebrates with the Kabuki Lion Dance, which Patricia Birch turns into a sukiyaki of steps including soft-shoe and Uncle Sam cakewalk.

But in the second act a fuzzy seriousness starts to erode this synthesis of wit and warmth. And the finale is a high-kicking lecture on the evils of Westernized Japan with its transistorized culture

and polluted air. Ah, poor little Nippon, you might still be floating happily among the pearls and prawns of the Pacific if we corrupt Western finks hadn't gunboated you into the modern world. This didactic bathos brings "Pacific Overtures" to a stumbling close, exposing a streak of cultural sentimentality that's been kept in abeyance for most of the evening by sheer theatrical creativity.

But that creativity can't be gainsaid. It produces as brilliant a first act as you'll see in any musical and a show that voluptuates with invention and sheer beauty. The all-Oriental cast is led by Mako, who plays the reciter, the ill-fated shogun and others; Haruki Fujimoto, who plays Commodore Perry; and Isao Sato as a shabby-genteel samurai who rises by his wits in the sudden collision of East and West. Willing and eager to challenge himself, Prince is challenging the Broadway audience with a cast that is starless but nearly flawless.

—JACK KROLL

Newsweek, January 26, 1976

Report from Philip Morris

# Twelve Year Effort Ends With Unprecedented Flavor In Low Tar Smoke.

**New 'Enriched Flavor' discovery for 9 mg. tar MERIT achieves taste of cigarettes having 60% more tar.**

The greatest challenge to cigarette-makers in the last two decades has been how to make a low tar cigarette that wasn't "low" in taste.

It seemed impossible.  
Until now.

After twelve long, hard, often frustrating years, Philip Morris has developed the way to do it.

The cigarette is called MERIT. It delivers only 9 mg. of tar. One of the lowest tar levels in smoking today. Yet

MERIT delivers *astounding* flavor.

If you're looking to become a low tar smoker, or don't particularly enjoy the taste of the low tar brand you smoke now — you'll be interested.

## **Low Tar, Good Taste: Filters Fall Short**

Like most everyone else, we tried to design special "low tar, good taste" filters. Special filters that would somehow allow taste through but not tar.

Like others, we experienced the same general kind of results: the lower the tar, the lower the taste.

So for flavor, we concentrated on the business end of smoking. The tobacco end.

And decided if we wanted more flavor to come through, we'd just have to find a way to start with more.

## **Smoke Cracked: 'Enriched Flavor' Discovery**

So we began an exhaustive research program in cigarette smoke analysis and the ingredients that actually comprise cigarette taste.

By using a very sensitive instrument called an Analytical Fractometer, we were able to "crack" cigarette smoke down into its various ingredients.

We found there are over 2000 separate ingredients in smoke.

Each was isolated and analyzed, one by one.

What we discovered was startling: *there are ingredients in tobacco — "key" basic flavor units — that deliver taste way out of proportion to tar.*

Breakthrough.

By fortifying tobacco with these natural

flavor essentials, we're now able to pack flavor — extraordinary flavor — into a cigarette without the usual increase in tar.

The discovery is called 'Enriched Flavor.' It's extra flavor. Flavor that can't burn out, can't fade out, can't do anything but come through for you.

## **Taste-Tested By People Like You**

9 mg. tar MERIT was taste-tested against five current leading low tar cigarette brands ranging from 11 mg. to 15 mg. tar.

Thousands of smokers were involved. Smokers of filter cigarettes like yourself, all tested at home.\*

The results were conclusive:

*Even if the cigarette tested had 60% more tar, a significant majority of all smokers tested reported new 'Enriched Flavor' MERIT delivered more taste.*

Repeat: delivered more taste.

In similar tests against 11 mg. to 15 mg.

menthol brands, 9 mg. tar MERIT MENTHOL performed strongly, too, delivering as much — or more — taste than the higher tar brands tested.

You've been smoking "low tar, good taste" claims long enough.

Now you've got the cigarette.

MERIT.

Incredible smoking pleasure at only 9 mg. tar.

From Philip Morris.

\*American Institute of Consumer Opinion. Study available free on request.

9 mg. 'tar,' 0.7 mg. nicotine av. per cigarette by FTC Method.

**Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health.**



**9 mg. "tar" 0.7 mg. nicotine**